

**NATURAL KILLER CELL LINES AND METHODS OF USE****ABSTRACT**

This invention relates to a natural killer cell line termed NK-92. The invention provides a vector for transfecting a mammalian cell which includes  
5 a nucleic acid sequence encoding a cytokine that promotes the growth of NK-92. Additionally, the invention provides an NK-92 cell, or an NK-92 cell modified by transfection with a vector conferring advantageous properties, which is unable to proliferate and which preserves effective cytotoxic activity. The invention further provides a modified NK-92 cell that is transfected with a  
10 vector encoding a cytokine that promotes the growth of NK-92 cells. The cell secretes the cytokine upon being cultured under conditions that promote cytokine secretion, and furthermore secretes the cytokine *in vivo* upon being introduced into a mammal. In a significant embodiment, the cytokine is interleukin 2. The present invention also provides methods of purging cancer  
15 cells from a biological sample, of treating a cancer *ex vivo* in a mammal, and of treating a cancer *in vivo* in a mammal employing a natural killer cell, such as NK-92 itself, an NK-92 cell which is unable to proliferate and which preserves effective cytotoxic activity, or natural killer cells transfected with a vector encoding a cytokine.

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